



Aviation Education News



Distributed Quarterly to Promote Aviation Education and Awareness in Virginia

August 2001

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Aviation Educator's Conference in Washington, D.C. in 2002

Mark your calendars! Educators from across the United States will be in Washington, D.C. when the National Congress on Aviation and Space Education takes place April 3-6, 2002.

This highly respected conference, celebrating its 35th year, will attract teachers of science, math, technology, language arts, social studies and many other subjects who want to learn why integrating aerospace into the curriculum motivates students. They will learn how the wonders of aviation and space can be a way to teach ordinary subjects in an extraordinary way. Recognizing the importance of educational standards, teaching aerospace using a multi-disciplined approach involving national educational standards is a major component of the conference.

General sessions feature motivational (and often well-known) speakers. Breakout sessions feature aerospace-oriented hands-on activities for all grade levels taught by master teachers, NASA education specialists, and other aerospace experts from around the world. They range from a virtual exploration of Mars to how to build inexpensive kites, balloons, aircraft and rockets.

Don't miss your opportunity to attend a truly unique educational event! Register now!

Credit:

The Congress is certified for 30 contact hours or 3 continuing education units. Graduate credit is also available.

Sponsors:

Civil Air Patrol and the United States Air Force, in affiliation with the National Aerospace Teachers' Association.

**National Congress on Aviation and Space Education
(NCASE)**

April 3-6, 2002

**Crystal Gateway Marriott
Arlington, VA
(Washington, D. C.)**

**For the latest information on speakers and registration for National Congress
2002, visit: <http://www.capnhq.gov/conference/>**

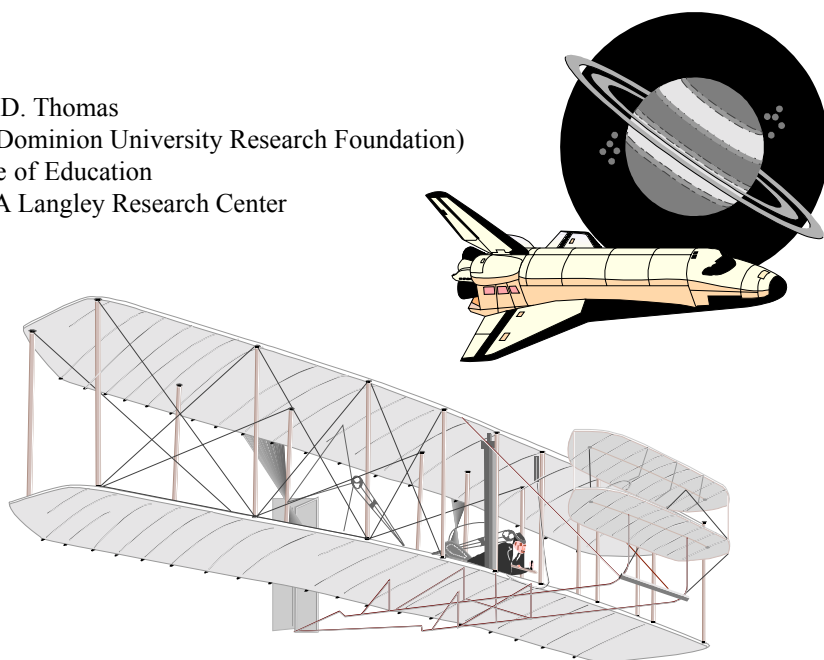
PRESIDENT'S NOTES

The NASA Langley Research Center's Office of Education (OEd) is working in collaboration with the Virginia Department of Aviation which is an excellent way to maintain two-way communication between federal and state aviation education concerns.

I have just returned from Baltimore, MD where I attended a regional AIAA leadership conference. I presented two programs entitled, "Using Your Key to Unlock the Future: Precollege Outreach," on July 13-14. These programs provided tools and techniques for the approximate 40 engineers in attendance to reach out and communicate with K-12 audiences. I want to share with teachers to make science, mathematics and technology appreciation more fun, using aerospace activities. One way this can be done is by becoming an "Educator Associate", this could bring new energy into your classroom. The benefits are as follows: Participation in local AIAA activities, attend AIAA conferences free, tap into AIAA clearinghouse of aerospace information, gain recognition for efforts in education and lastly, qualify for up to a \$200 grant to push your science, math, or related academic agenda forward. They have developed innovative programs for obtaining an AIAA Foundation Education Classroom Aid Grant. For information contact: Lisa Bacon, 800-639-AIAA, ext. 527 or via e-mail lisab@aiaa.org.

On October 22-25, 2001, there will be an International Flight Symposium and Festival to be sponsored by The North Carolina First Flight Centennial Commission at the General Headquarters: McKimmon Conference & Training Center, NC State University, NC. The title of this program is "They Taught The World To Fly: The Wright Brothers And The Age Of Flight". For more information please use the following URL: <http://www.firstflight.nc.org>

Peter D. Thomas
(Old Dominion University Research Foundation)
Office of Education
NASA Langley Research Center



VASEF AVIATION EDUCATION NEWS
is published quarterly in support of aviation education in the Commonwealth of Virginia by the Virginia Department of Aviation.

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VASEF PURPOSE

The Forum is a non-profit organization to promote and foster aviation and space education among public and private schools, colleges and universities, and community and civic groups, and to promote increased public understanding of aviation and space and their economic, social, and career values in our society and in the Commonwealth of Virginia.

Announcing... . 2002 International Aviation Art Contest

"Silent Flight"

Purpose

To motivate and encourage young people to become more familiar with and participate in aeronautics, engineering, and science.

As young people decide what sort of artwork to create to interpret the theme of the contest, they must think about flight. They may also need to do some research to determine how to depict the facet of flight they ultimately choose.

The realm of flight is so wide that the opportunities for creativity are endless! Just view some of the winners from previous years and you will be amazed at the multiple interpretations of a single idea.

The theme of the 2002 International Aviation Art Contest is "Silent Flight."

Brochures describing the competition, the deadlines (usually the beginning of February), and how to submit entries to the Virginia state contest (the first level of the competition) will be mailed to each Virginia public school early in the 2001/02 school year.

If you don't receive a brochure contact the state sponsor listed at the end of this article.

Age Groups

Entries will be judged in 3 classes (determined by the age of the entrant on December 31, 2001).

- I. Ages 6 to 9
- II. Ages 10 to 13
- III. Ages 14 to 17

Levels of Competition

State Awards

Entries in each age group will be judged and state winners and runners up selected. Winners will receive a certificate and

recognition from their state. The top three entries in each age group will be forwarded to Washington, D. C. to participate in the national competition.

National Awards

A national winner and two runners up will be selected from each age group. All national winners will receive certificates, ribbons, a framed reproduction of their artwork, and a professional work of art compliments of the American Society of Aviation Artists.

International Awards

The national winners and runners up in each age group will be forwarded to FAI for international judging. Winners of the international competition will receive certificates and gold, silver, or bronze medals.

Contest Rules

Size

Artwork size should be 11 x 17 inches. Due to international criteria, 8.5 x 11 entries are not eligible. Artwork must not be framed, mounted, or outlined with borders.

Medium

All artwork must be hand-made using any of the following media: watercolor, acrylic or oil paints, indelible markers, colored pencils, felt-tip pens, soft ball-point pens, indelible ink, Crayola, or similar indelible mediums.

The following media are NOT permitted: pencil, charcoal or other non-permanent medium, computer generated artwork, or collage work involving the use of photocopies.

Certification

Parent, guardian or art teacher must certify authenticity of artwork and the age of each artist. (U.S. judges will issue certificates of authenticity to national winners for international competition.)

Reproduction Rights

Once received, entries will become and remain the property of the Federation Aeronautique Internationale (FAI) or state sponsor and may be used for a variety of purposes.

Sponsors

The 2002 International Aviation Art Contest is sponsored by the National Aeronautic Association, National Association of State Aviation Officials, National Aeronautics and Space Administration, and the Federal Aviation Administration, in cooperation with the Federation Aeronautique Internationale (FAI).



Chasity Toms, a student at Brookneal Elementary School, placed 2nd in Category I (ages 6-9) in the 2001 Virginia contest.

From left: Chasity's mom, Chasity, Betty Wilson and Olivia Dickerson (Virginia Department of Aviation).

Centennial of Flight Posters

Two educational posters featuring the Wright Brothers have been created by NASA.

The first is called "The Wright Way: Innovation Through Engineering." It contains metric activities associated with the Wright Brothers' flight experiments.

Activities on the poster include:

- constructing and testing a sled kite
- analyzing the date, and
- assembling a metric cube.

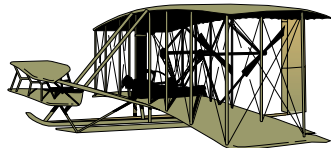


The second poster is called "The Wright Way: The Process of Invention." It traces the Wright Brothers' story with examples of their experiments and inventions. It also contains an activity for constructing and testing a flying model glider.

Both posters may be downloaded from the U. S. Centennial of Flight Commission's web site. www.centennialofflight.gov

Also available is an aviation careers poster called "Consider a Career in Aerospace" which encourages young women to pursue careers in mathematics, science, engineering, and technology.

Finally, a Centennial of Flight bookmark, which features information about the web site and activities for students and teachers, is also available for download.



VAOC Scholarship Recipient

The 2001 Virginia Airport Operators Council (VAOC) Aviation Scholarship award was presented to Andrew Hopkins, a senior at Atlee High School in Mechanicsville, Virginia. Andrew has been accepted into the Engineering School at Virginia Tech and plans to attend in the fall.

Margaret-Anne Hilliard, Manager of the Hanover County Airport, presented the award at a ceremony on May 31, 2001.

Criteria for the 2001 VAOC Scholarship Award included: the student must have been a Virginia high school senior with at least a GPA average of 3.75, planning a career in the field of aviation, and enrolled or accepted into an aviation related program at an accredited college. In addition the student submitted an essay entitled "Why I Wish to Pursue a Career in Aviation."

VAOC is an organization comprised of airport operators within the Commonwealth of Virginia. One of its objectives is to advance and promote educational opportunities and programs in the aviation industry within the Commonwealth.

New Aviation Maintenance Technician School Opening Soon in Manassas

The Aviation Institute of Maintenance in Manassas is scheduled to open in the Fall of 2001. It will be a sister school of Tidewater Tech in Norfolk (along with 3 other A&P schools in other states).

It will offer an FAA approved, Part 147, Aviation Maintenance Technician program which qualifies graduates to become certified Airframe and Powerplant mechanics. The school will be located at Manassas Regional Airport.

For more information visit the Tidewater Tech web site at www.tidetech.com or call (703) 257-5515.

National Air and Space Museum Calendar

Saturday, August 25, 2001

Monthly Star Lecture

"Capturing the Universe"

From beneath the floor, a massive dumbbell-shaped instrument rises slowly to project the wonders of the skies onto the dome of the Einstein Planetarium. Did you know that it was a gift to the museum when it opened in 1976? But what is it exactly and how does it work? Planetarium show producer John Stoke, from the Space Telescope Science Institute in Baltimore, MD, shares the history of the planetarium's projection system and reveals a bit of the new technology in store for the domed theater. 6:00 p.m. in the Einstein Planetarium.

Saturday, September 15, 2001

Dulles Day Family Festival

Once a year the Washington Dulles International Airport opens usually off-limits hangars to show off the Space Shuttle Enterprise and SR-71 Blackbird, along with many other aviation artifacts in temporary storage there. Enjoy the annual Plane Pull, as well as rides, games, exhibits, live music and free parking. Follow Dulles Airport signs that read "Dulles Day," or visit www.planepull.com for directions and information.

11:00 a.m. - 4:00 p.m. at Washington Dulles International Airport.

Friday, September 21, 2001

New Exhibit Opening

Explore the Universe

On Friday, September 21, the National Air and Space Museum will open a major new permanent exhibition entitled Explore the Universe. The artifact-rich exhibition will showcase the most significant observational tools astronomers have devised over the past four centuries and highlight the discoveries that have led to current scientific views.

Saturday, September 22, 2001

National Air and Space Society Lecture

"The Flight for Air Superiority During WWII"

Col. Robert "Shorty" Rankin, USAF (Ret.) and Gen. Gunther Rall will share their experiences as World War II fighter pilots. Note: Tickets are required. Advance tickets, \$10 for Society members, \$15.00 for non-members, will be sold on a first-come, first-serve basis over the phone and through the mail. For complete information, call (202) 357-3762. 8:00 p.m. in the Langley IMAX Theater.

Saturday, September 29, 2001

Monthly Star Lecture

Autumn Starlights: Nights of the Flying Horse

Steve Mitch, planetarium director, Benedum Planetarium, Wheeling, WV, returns with an audience favorite. Using simple-to-use star locators and the technology of the planetarium, Mitch will teach visitors how to locate the Great Square of Pegasus and other constellations prominent in the autumn. Finally, test your locating skills under the real night sky.

6:00 p.m. in the Einstein Planetarium.

The Virginia Department of Aviation Teachers Grant Program is entering it's fourth year -- Applications for 2001/02 will be mailed to each public school. Applications will be accepted until November 15. For more information visit the Department's web site at www.doav.state.va.us.

Virginia Department of Aviation Teachers Grant Application

Your Name: _____

If you are requesting the grant as a member of a team, please list team members names below:

Mailing Address: _____

City/State/Zip: _____
Circle one: home address school address

Your Telephone Number: _____
Circle one: home telephone school telephone

Your E-Mail Address: _____

School Name: _____

Grade Taught: _____ Subject: _____

Describe your lesson idea - must utilize some facet of aviation: (in 150-500 words)

Attach additional sheets and/or lesson plans, if prepared.

What Learning Outcomes are you looking for from this project?

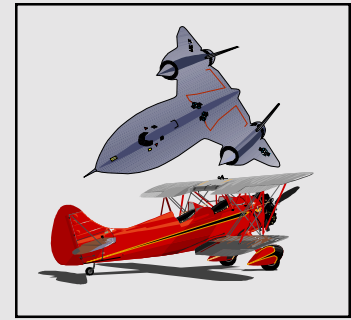
If funded, how do you propose to share this lesson with your colleagues?

Amount Requested: _____

What will the grant money be used for: _____

If selected, I agree that before the end of the school year in which I receive this grant, I will complete the above project; that I will provide a final report on the program, including copies of lesson plans developed (at least one is required), a summary of how well the program worked, how many students benefited from the program, a shopping list of materials (and costs) for supplies, and receipts for supplies purchased for the program. I understand that the Virginia Department of Aviation will pay for or reimburse only those amounts approved in the original grant and may publish lesson plans and program summaries in their aviation education publications (with credit given).

Signature: _____



VIRGINIA AVIATION MUSEUM CALENDAR

August 16, 2001

Guest Lecture Series

"V-22 Osprey"

Rick Watts, flight test engineer for Boeing Aircraft Corporation, who has been with the Osprey program since 1997, describes this unique aircraft and the many challenges it faces before integration into full use by the military.

7:00 p.m. Free

September 20, 2001

Guest Lecture Series

"Army Aerial Target Acquisition in the DMZ - Vietnam"

Retired Army Lt. Col. Winn McDougal details the use of aviation technology in close coordination with conventional aerial observers.

7:00 p.m. Free

October 6, 2001

SR-71 Forum 2001

Explore the world of the fastest, highest-flying and most intriguing aircraft on record - the SR-71 Blackbird. Participate in discussions on the development and operation of the SR-71 Blackbird. Meet author Donn Byrnes, flight test engineer and co-author of "Blackbird Rising." SR-71 Forum 2001 is included in museum admission.

9:30 a.m. - 5:00 p.m. Registration and information (804) 236-3622.

For further information on events and schedules, call (804) 236-3622.

Aviation Education Corner

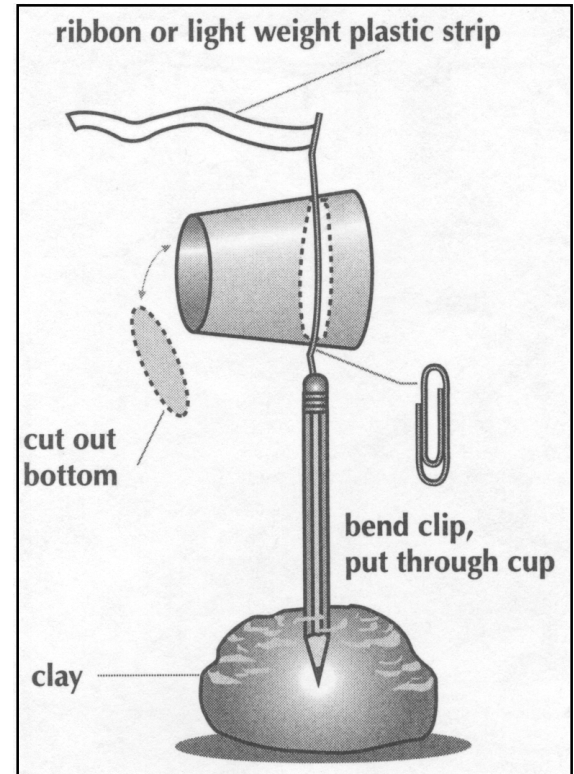
Let's Build a Table Top Airport

In the May 2001 issue of VASEF Aviation Education News, instructions were given for building a table top airport. This month extensions to this project will be presented.

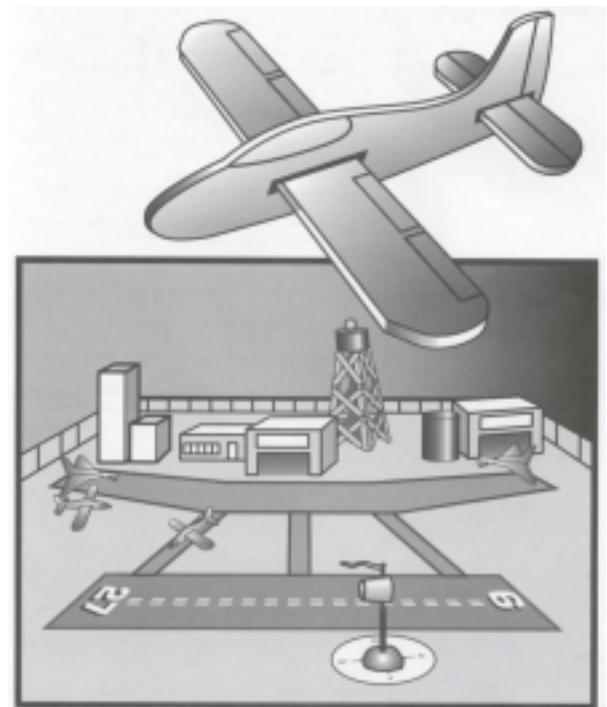
Extensions

1. Using modeling clay, pencil, Styrofoam cup, and paper clip, build a model wind sock for the airport (see illustration).
2. Use a compass to draw a "compass rose" at the airport site.
3. Ask five (5) or more students to take off from the airport with their model airplanes. Have them "fly" to a destination in the classroom and return to the airport for landing. Ask student observers to describe what method the pilots used to avoid hitting each other. Discuss reasons why real airports designate flight patterns for pilots to use. Why is it important that pilots communicate with each other during a flight?
4. Busy airports (controlled airports) employ air traffic controllers to direct flight operations. Pilots are required to have radio contact with the control towers to receive takeoff and landing instructions. This method helps to ensure safe operations. Have a student air traffic controller direct flight operations at the model airport.
5. Runway numbers are based on magnetic direction. For example, if an airport runway is numbered 27, it is aligned in a direction of 270 degrees (it points west). Number the runways on the model airport.
6. Airplanes always try to takeoff and land into the wind. Place a small electric fan on the table to test the wind sock. Use the information from the wind sock to decide which runway to use.
7. Visit a local airport with the students to see how it is arranged.

How to Build a Model Windsock



Completed Table Top Airport



VSU Summer Transportation Institute

Selected young people from across the Commonwealth spent four weeks this summer at the VSU Summer Transportation Institute Program (STIP). They explored all facets of transportation through tours, lectures, and hands-on activities. Among their tours were visits to VDOT (Virginia Department of Transportation), the National Air and Space Museum, and Richmond International Airport. They built model bridges, solar cars, and paper airplanes. They also attended classes including one on communications where they wrote and received experience in creating presentations and public speaking.

Equally important, these young people, most of whom will be entering high school this fall, got a taste of college life by living on the Virginia State University campus.

In addition to the Engineering Technology staff at Virginia State University, state and federal agencies and private sector companies contributed to the Institute. These included the United States Department of Transportation, VDOT, Virginia Department of Aviation, and others.

For more information on the STIP program contact Dr. Ali Ansari, PhD, Assistant Professor, Engineering Technology, Virginia State University, Box 9032, 1 Hayden Drive, Petersburg, Virginia 23806; (804) 524-5126.

Young Eagle Number 700,000 Flies

The Experimental Aircraft Association (EAA) hopes to give one million young people a free airplane ride by the 100th Anniversary of powered flight in 2003. Another milestone toward that goal has been cleared with the flight of Young Eagle No. 700,000 on June 9.

The lucky Young Eagle was Robert Morrison, 13, of Durham, California who was flown by pilot Shirley Weinbaum. Robert was one of three Young Eagles flown by Shirley at an International Young Eagles Day Event at Chico Municipal Airport.

Robert was entered into the world's largest logbook on June 25 as entry number 700,000.

Virginia's EAA Chapters have been very active in the Young Eagles Program ever since its inception. The top three Young Eagles pilots in Virginia each year (our "Top Eagles") are honored in August at an Awards Banquet held during the Virginia Aviation Conference.

Aviation & Space



Web Sites

Centennial of Flight Commision www.centennialofflight.gov
 Federation Aeronautique Internationale
 (education) <http://www.fai.org/education/>
 NASAO
 (see National Art Contest Winners) www.nasao.org
 National Aeronautic Association (NAA) [http://www.naa-usa.org/website/html/](http://www.naa-usa.org/website/html/awardsset.html)
 (art contest awards) [awardsset.html](http://www.naa-usa.org/website/html/awardsset.html)
 National Congress on Aviation
 and Space Education www.capnhq.gov/conference
 Tidewater Tech www.tidetech.com
 Virginia Department of Aviation www.doav.state.va.us

SCIENCE MUSEUM OF VIRGINIA CALENDAR

IMAX FILMS

Journey Into Amazing Caves - thru Oct. 19
 Super Speedway - thru Sept. 14

MULTIMEDIA SHOWS

Star Date: Native Skies - thru Sept. 16
 The Night Sky - Daily

LIVESKY: Informal "live" planetarium presentation of the month's celestial events. Third Friday of every month.

SKYWATCH: Third Friday of every month (weather permitting) on the front lawn.

24-Hour Information: (804) 367-0000
 Box Office: (804) 367-1080
 24-Hour Skywatch Information: (804) 367-8277
 24-Hour TDD Information: (804) 367-9760
 General Information - TDD: (804) 367-6552
 Group Scheduling: (804) 367-6552
 Home Page: <http://www.smv.org>

VIRGINIA AIR AND SPACE CENTER CALENDAR

VISITING EXHIBITS:

The Robot Zoo - thru September 9

IMAX FILMS:

Yellowstone - thru Sept. 9, 2001
 *NSYNC: Bigger Than Live - thru September 9, 2001
 Adventures in Wild California thru September 9, 2001

SIGMA SERIES LECTURES:

Advanced Fuels Research - Bryan Palaszewski - August 7, 200, 7:30 p.m.

Turbulent Combustion - Stephen B. Pope, September 11, 2001, 7:30 p.m.

30th Anniversary Lecture - October 2, 2001

Call (804) 727-0900 for showtimes
 Visit the Center's Home Page:
<http://www.vasc.org>
 Visit the Teacher Resource Center Home Page:
<http://seastar.vasc.mus.va.us>

Calendar of Events

Aug. 21-24, 2001

Virginia Aviation Conference will take place at the Crystal Gateway Marriott in Arlington, Virginia. For more information call (804) 236-3642 or (804) 225-3783.

September 8, 2001

10th Annual Louisa County Air Show will be held at Louisa County Airport/Freeman Field from 11:00 a.m. to 4:00 p.m. For more information contact Dawn Pickhardt at (540) 967-0050 or e-mail Dawnp@Firstva.com.

September 15, 2001

Dulles Day - Featuring the Plane Pull will be held at the Washington Dulles International Airport from 11:00 a.m. - 4:00 p.m. For more information contact Mark Anderson at (703) 417-8530 or e-mail andersonm@mwaa.com.

September 22-24, 2001

Naval Air Station Oceana 42nd Annual Air Show and Sixth Annual Twilight Show features the Canadian Snowbirds. For more information visit www.neptuneairshow.com.

September 29, 2001

6th Annual Wings and Wheels Show will be held at Hummel Airfield in Topping, VA. For more information visit <http://fly.to/wingsandwheels>.

For more events check out:

<http://www.doav.state.va.us/calendar.htm>.

Aviation Education Supporters:

VASEF projects are funded by our membership fees and by donations from our member organizations. We would appreciate your support through membership in our organization.

_____ Regular Membership \$25.00 annually (July - Dec. \$12.50)

_____ Non-Profit Organization \$25.00 annually (July - Dec. \$12.50)

_____ Corporate Membership \$100.00 annually (July - Dec. \$50.00)

_____ New Member _____ Renewal

Date: _____

Name: _____

Name of Organization: _____

Occupation: _____

Address: _____

City: _____ State _____ Zip _____

Telephone _____

Please Return to: Tom Tyndall, VASEF Treasurer
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Inside:

Grants

Art Contest

Aviation Educator's Conference



Please Post for Teachers